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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/576,245	05/24/2000	Shin Muto	35.C14506	4825

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EXAMINER

HAMILTON, MONPLAISIR G

ART UNIT PAPER NUMBER

2172

DATE MAILED: 06/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

CRS

Office Action Summary

Application No.

09/576,245

Applicant(s)

MUTO ET AL.

Examiner

Monplaisir G Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed with Application No. 09576245, filed on 5/24/2000. English translation not included.

Specification

2. The disclosure is objected to because of the following informalities: page 11, line 5 "even" should be "event". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6, 9, 14, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over *RFC 1777 – Lightweight Directory Access Protocol* by Yeong et al herein referred to as Yeong.

Referring to Claims 1 and 9:

Yeong discloses the protocol is specifically targeted at simple management applications and browser applications that provide simple read/write interactive access to the X.500 Directory (page 1, Abstract, lines 4-6). The general model is one of clients performing protocol operations

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against servers (page 2, Protocol Model, lines 1-2). The search operation allows a client to request a search (page 8, Search Operation, lines 1-3). The user can set a size limit that restricts number of entries to be returned (page 9, Search Operation, lines 9-13). The user can also set an indicator that shows whether the results should contain both attribute types and values or just attribute types (page 9, Search Operation, lines 17-21). The client/user can also use filters that define conditions that must be fulfilled in order for a search to match a given entry (page 10, Search Operation, lines 3-4). Search responses each consisting of an entry found during the search (page 10, lines 14-16) are returned to the client.

Yeong does not expressly disclose the claimed "management means for managing a database including identification information for identifying the device on the network and attribute information associated thereto;

Input means for entering a search condition for searching a desired device on the network;

Search means for searching a device matching the entered search condition from said database;

Output means for outputting, on a device matching the entered search condition, a search result including the identification information and the attribute information of such device; and

Control means for controlling the information to be outputted to said search result, according to the number of the device matching the entered search condition."

However, Yeong does disclose a directory schema, which stores the information entered by a user (page 12, Add Operation, lines 1-2), this functionality as well as those described above are similar to the claimed database management system. The search request means has the same

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functionality as the input and search means combined. The claimed output means has the same functionality as the search response means. The filter means combined with the indicator and size limit offer the same functionality as the claimed output control means.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify the teachings of Yeong. One of ordinary skill in the art would have been motivated to do this because this would create a directory service for efficiently finding and utilizing the resources on the network (APP# 9576845, Background Art, lines 7-10).

Referring to claim 17:

Claim 9 is a method and claim 1 is an apparatus using said method. Claim 17 is a computer program, which implements the method of claim 9. Therefore the limitations of claim 17 are rejected under the same rationale as claims 1 and 9.

Referring to Claims 6 and 14:

Yeong discloses the protocol is specifically targeted at simple management applications and browser applications that provide simple read/write interactive access to the X.500 Directory (page 1, Abstract, lines 4-6). The general model is one of clients performing protocol operations against servers (page 2, Protocol Model, lines 1-2). The search operation allows a client to request a search (page 8, Search Operation, lines 1-3). The user can set a size limit that restricts number of entries to be returned (page 9, Search Operation, lines 9-13). The user can also set an indicator that shows whether the results should contain both attribute types and values or just attribute types (page 9, Search Operation, lines 17-21). The client/user can also use filters that define conditions that must be fulfilled in order for a search to match a given entry (page 10,

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Search Operation, lines 3-4). Search responses each consisting of an entry found during the search (page 10, lines 14-16) are returned to the client.

Yeong does not expressly disclose the claimed “management means for managing a database including identification information for identifying the device on the network and static information associated thereto;

Input means for entering a search condition for searching a desired device on the network;

Search means for searching a device matching the entered search condition from said database;

Output means for outputting, on a device matching the entered search condition, a search result including the identification information and the attribute information of such device; and

Control means for controlling the information to be outputted to said search result, according to the number of the device matching the entered search condition.”

However, Yeong does disclose a directory schema, which stores the information entered by a user (page 12, Add Operation, lines 1-2), this functionality as well as those described above are similar to the claimed database management system. The search request means has the same functionality as the input and search means combined. The claimed output means has the same functionality as the search response means. The filter means combined with the indicator and size limit offer the same functionality as the claimed output control means. The static limitation does not affect the functionality of the directory access. This is an implicit requirement for database data to achieve an effective database management system.

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It would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify the teachings of Yeong. One of ordinary skill in the art would have been motivated to do this because this would create a directory service for efficiently finding and utilizing the resources on the network (APP# 9576845, Background Art, lines 7-10).

Referring to claim 22:

Claim 14 is a method and claim 6 is an apparatus using said method. Claim 22 is a computer program, which implements the method of claim 14. Therefore the limitations of claim 22 are rejected under the same rationale as claims 6 and 14.

4. Claims 2-4, 7, 10-13, 15, 16, 18, 19-21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over *RFC 1777 – Lightweight Directory Access Protocol* by Yeong et al herein referred to as Yeong as applied to claims 1, 6, 9, 14, 17 and 22 above, and further in view of *Resource-Driven Resource Location* by Wills et al. herein referred to as Wills.

Referring to claim 2, 7, 10, 15, 18, and 23:

Yeong discloses the limitations as discussed in claims 1, 6, 9, 14, 17, and 22 above.

Yeong does not expressly disclose “said control means is adapted, in case the number of the devices outputted in said search result is at least equal to a predetermined value, to add additional information on each of the devices outputted by said search result, to said search result.”

Wills discloses that queries are specified with a simple query language (page 82, Section 4.1 Query Language, lines 1-2).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the directory service by adding a control means for controlling the output of additional information depending on the number of results returned. This type of functionality could be easily added with 3-4 query language statements.

One of ordinary skill in the art would have been motivated to do this because it would give the user more information regarding the result, thereby enabling a client/user to make better choices with regard to the device.

Referring to claim 3, 11, and 19:

Yeong in view of Wills discloses the limitations as discussed in claims 2, 10, and 18 above.

Yeong does not expressly disclose “communication means for acquiring device information, registered corresponding to said identification information in another apparatus on said network, from said another apparatus;

Wherein said control means is adapted to acquire, by said communication means, additional information on each of the devices outputted by said search result ad to add said additional information to said search result.”

Wills discloses clients seeking information send a message to the corresponding address where, in the ideal case, a machine receives a request only when it contains the requested information about the resource (page 80, Abstract, lines 8-11). The basic idea is to map a resource attributes to a multicast address group only if it has that corresponding resource attribute (page 80, Introduction, lines 25-33).

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At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to acquire device information for another apparatus, wherein this information is outputted as part of the search result concerning the specified device.

One of ordinary skill in the art would have been motivated to do this because this would to obtain up-to-date, dynamically changing information while imposing the minimum communication overhead (page 81, Introduction, lines 11-13).

Referring to claim 4, 12, and 20:

Yeong in view of Wills discloses the limitations as discussed in claims 3, 11, and 19 above.

Yeong does not expressly disclose “control means adapted to acquire, from an apparatus managing location information of the devices on said network, the location information of each of the devices outputted by said search result, and to add said location information to said search result.”

Wills discloses a request might be to locate all machines that offer a particular compilation service or to locate a machine with a given architecture and a low load. The key idea is that the resource location process is driven by the resource request as the query itself is mapped to an underlying multicast address for delivery (page 81, Introduction, lines 3-8). The exact location information can be obtained by including a query that requested that information from the machines that meet the specified conditions.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Yeong such that location information would be output with device result information.

One of ordinary skill in the art would have been motivated to do this because this would allow the user to locate the device corresponding to the attributes specified in the search condition.

Referring to claims 8, 16, and 24:

Yeong discloses the limitations as discussed in claims 6, 14, and 22 above.

Yeong does not expressly disclose the claimed “discrimination means for discriminating a device of a high frequency of use, based on the dynamic information relating to the use history collected from the devices on said network;

Wherein said control means is adapted, in case the number of the devices matching the entered search condition is zero, to add the information of the device discriminated as the device of a high frequency of use to said search result.”

Willis discloses the use of a query language. This query language can be used to structure a condition that applies to the claimed condition.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to return a default service or device if none of the services or results match the attributes requested by the user.

One of ordinary skill in the art would have been motivated to do this because it would enable a user to continue execution of a process despite the fact that they are no devices that have all the attributes that match.

Prior Art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US patent 6026403 issued to Siefert

US patent 5974409 issued to Sanu et al.

US patent 5511208 issued to Boyles et al.

US patent 5778185 issued to Gregerson et al

US patent 5261044 issued to Dev et al.

JP patent 09-305335 issued to Takami

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monplaisir G Hamilton whose telephone number is 1703-305-5116. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on 1703-305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are 1703-746-7239 for regular communications and 1703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 1703-305-3900.

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Monplaisir Hamilton

June 18, 2002

A handwritten signature in black ink, consisting of a stylized 'J' and 'C' followed by a horizontal line.

JEAN M. CORRIELUS
PRIMARY EXAMINER